

**SECTION 10 51 13
METAL LOCKERS**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section specifies metal lockers and related accessories, including finished end panels and sloping tops.

1.2 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, and SAMPLES.
- B. Manufacturer's Literature:
 - 1. Maintenance data.
- C. Shop Drawings:
 - 1. Include plans, elevations, sections, details, and attachments to other work.
 - 2. Show sloping tops, built-in combination locks, and locker identification system.
- D. Samples:
 - 1. For each exposed finish.
- E. Warranty
 - 1. Provide manufacturer's standard 2 year warranty against all defects in material and workmanship.

1.3 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in the text by basic designation only.
- B. American Society for Testing and Materials (ASTM):
 - A36/A36M-05 Carbon Structural Steel
 - A366/A366M-97(E 1998)..... Commercial Steel (CS), Carbon, Cold-Rolled-Replaced by ASTM A1008/A1008M
 - A568/A568M-07 Steel, Sheet, Carbon and High-Strength, Low-Alloy Hot-Rolled and Cold-Rolled, General Requirements
 - B456-03..... Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium
- C. American Welding Society (AWS):
 - D1.1-06..... Structural Welding Code Steel
 - D1.3-98..... Structural Welding Code Sheet Steel
- D. National Association of Architectural Metal Manufacturers (NAAMM):
 - AMP 500-505-88 Series Metal Finishes Manual

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Sheet Steel:
 - 1. ASTM A366, cold rolled, Class 1 finish, stretcher leveled.
 - 2. Other types of cold rolled steel meeting requirements of ASTM A568 may be used for concealed parts.
- B. Fasteners:
 - 1. Exposed to view, zinc-or nickel-plated steel, slot less-type exposed bolt heads, and self-locking nuts or lock washers for nuts on moving parts.
- C. Anchors:
 - 1. Select material, type, size, and finish required for secure anchorage to each substrate.

2.2 STANDARD METAL LOCKERS

- A. Locker Arrangement: Double tier (36" height per opening).
- B. Body: Assembled by riveting or bolting body components together. Fabricate from unperforated, cold-rolled steel sheet with thicknesses as follows:
 - 1. Tops, Bottoms, and Sides: 0.0528 inch (1.35 mm) thick.
 - 2. Backs: 0.0428 inch (1.1 mm) thick.
- C. Frames: Channel formed; fabricated from 0.0528-inch- (1.35 mm) thick, cold-rolled steel sheet; lapped and factory welded at corners: with top and bottom main frames factory welded into vertical main frames. Form continuous, integral door strike full height on vertical main frames.
- D. Doors: One-piece, fabricated from 0.0677-inch- (1.7 mm-) thick, cold-rolled steel sheet; formed into channel shape with double bend at vertical edges, and with right-angle single bend at horizontal edges.
 - 1. Reinforcement: Manufacturer's standard reinforcing angles, channels, or stiffeners for doors more than 15 inches (381 mm) wide; welded to inner face of doors.
 - 2. Door Style: Vented panel as follows:
 - a. Concealed Vents: Slotted perforations in top and bottom horizontal return flanges of doors.
- E. Hinges: Self-closing; welded to door and attached to door frame with not less than 2 factory-installed rivets per hinge that are completely concealed and tamper resistant when door is closed; fabricated to swing 180 degrees.
 - 1. Hinges: Manufacturer's standard. Steel continuous or knuckle type.
- F. Recessed Door Handle and Latch: Not less than 304 stainless steel cup with integral door pull, recess so locking device does not protrude beyond face of door: pry and vandal resistant.
 - 1. Multipoint Latching: Finger-lift latch control designed for use with padlocks: positive automatic latching and pre-locking.

- a. Latch Hooks: Equip doors 48 inches and higher with three latch hooks and doors less than 48 inches high with two latch hooks; fabricated from 0.105-inch nominal-thickness steel sheet; welded or riveted to full-height door strikes; with resilient silencer on each latch hook.
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- G. Locker Base: Structural channels, formed from 0.0528-inch thick, cold-rolled steel sheet, welded to front and rear of side-panel frames.
- H. Accessories:
 - 1. Closures: Vertical and horizontal end type.
 - 2. Finished End Panels: Fabricated from 0.024-inch (0.61-mm) nominal-thickness steel sheet.
 - 3. Recess Trim: Fabricated from 0.0428-inch thick, cold-rolled sheet.
 - 4. Filler Panels: Fabricated from cold-rolled steel sheet, manufacturer's standard thickness, but not less than 0.0329 inch thick.
- I. Finish: Baked enamel or powder coat.
 - 1. All lockers to be cleaned and coated after fabrication with a multi-stage zinc/iron phosphate solution.
 - 2. Color (s): As selected by Architect from manufacturer's full range.

2.3 FABRICATION

- A. General: Fabricate metal lockers square, rigid, and without warp; with metal faces flat and free of dents or distortion. Make exposed metal edges free of sharp edges and burrs, and safe to touch.
 - 1. Form body panels, doors, shelves, and accessories from one-piece steel sheet, unless otherwise indicated.
 - 2. Provide fasteners, filler plates, supports, clips, and closures as required for a complete installation.
- B. Unit Principle: Fabricate each metal locker with an individual door and frame; individual top, bottom, and back; and common intermediate uprights separating compartments.
- C. Knocked-Down Construction: Fabricate metal lockers using nuts, bolts, screws, or rivets for pre-assembly at plant prior to shipping.
- D. Identification Plates: Manufacturer's standard etched, embossed, or stamped aluminum plates; with numbers and letters at least 3/8 inch (9 mm) high.
- E. Finished End Panels: Designed for concealing unused penetrations and fasteners, except for perimeter fasteners, at exposed ends of non-recessed metal lockers; finished to match lockers.
- F. Recess Trim: Fabricate with minimum 2 1/2-inch face width and in lengths as long as practicable; finished to match lockers.
- G. Filler Panels: Fabricated in an unequal leg angle shape; finished to match lockers. Provide slip joint filler angle formed to receive filler panel.

2.4 STEEL SHEET FINISHES

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products: for recommendations for applying and designating finishes.
- B. Factory finish steel surfaces and accessories except stainless steel and chrome-plates surfaces.
- C. Surface Preparation: Clean surfaces of dirt, oil, grease, mill scale, rust, and other contaminants that could impair paint bond. Use manufacturer's standard methods.
- D. Baked-Enamel Finish: Immediately after cleaning, pre-treating, and phosphatizing, apply manufacturer's standard thermosetting baked-enamel finish. Comply with paint manufacturer's written instructions for application, baking, and minimum dry film thickness.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine walls and floors, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install level, plumb, and true; shim as required, using concealed shims.
 - 1. Anchor locker runs at ends and at intervals recommended by manufacturer, but not more than 36 inches (910 mm) o.c. Install anchors through backup reinforcing plates, channels, or blocking as required to prevent metal distortion, using concealed fasteners.
 - 2. Anchor single rows of metal lockers to walls near top and bottom of lockers.
- B. Knocked-down Metal lockers: Assemble with standard fasteners, with no exposed fasteners on door faces or face frames.
- C. Equipment and Accessories: Fit exposed connections of trim, fillers, and closures accurately together to form tight, hairline joints, with concealed fasteners and splice plates.
 - 1. Identification Plates:
 - a. Attach plates to each locker door, near top, centered with at least two aluminum rivets.
 - b. Attach plates to upper shelf of each open-front metal locker, centered, with at least two aluminum rivets.
 - 2. Attach sloping-top units to metal lockers with closures at exposed ends.
 - 3. Attach finished end panels with fasteners at perimeter to conceal exposed ends of lockers.

3.3 ADJUSTING, CLEANING AND PROTECTION

- A. Clean, lubricate and adjust hardware. Adjust doors and latches to operate easily without binding.
- B. Protect metal lockers from damage, abuse, dust, dirt, stain, or paint. Do not permit metal locker use during construction.

- C. Touch up marred finishes, or replace metal lockers that cannot be restored to factory finished appearance. Use only materials and procedures recommended or furnished by metal locker manufacturer.

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